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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/306,040	05/06/1999	CLARENCE C. RUDD	RCA88958	2950

7590

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EXAMINER

MEHRA, INDER P

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 08/11/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/306,040

Applicant(s)

RUDD ET AL.

Examiner

Inder P Mehra

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Response to Amendment

1. This is in response to an amendment B, dated 5/27/03, which has been fully considered and made of record. Based on this amendment, claims 1, 3- 4, 6-15 and 17 have been currently amended. Claims 2 and 16 were previously amended. Claims 1-17 are now pending. In view of the following arguments, this office action is Final.

§ Claim Objections

2. Claim 8-10 are objected to because of the following informalities:

Claims 8 (line 2) and 9 (line 2) recite the limitation "the step of increasing" in line 2.

There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the step of decreasing" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Turnbull et al** (US Patent No. 6,088,362), hereinafter **Turnbull** in view of **Wilder et al** (US Patent No.

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5,128,928), hereinafter Wilder, **Kumarek et al** (US Patent No. 6,408,008), hereinafter, 6408,008, further in view of **Vuong et al** (US Patent No. 6,240,077), hereinafter, Vuong.

Regarding claims 1, 3, 4, 6- 7, 11-12, 14-15 and 17, Turnbull discloses, in reference to figs. 1 and 2, a multi-line key telephone system which is not having “key service unit” (KSU 10) (or decentralized system) and provides uninterrupted telephone services (automatic service), refer to col. 4 lines 6-14 and abstract; comprising the steps of:

- when the system is idle, the station 14 must **determine** which one send out the system clock---concludes there are no stations transmitting, (**determining whether data are being transmitted in a time slot in said communication channel**), refer to col. 7 lines 54-58;
- signaling data is transmitted in the first time slot, refer to col. 8 lines 45-46; out of band data signal sent during first time slot, refer to col. 10, lines 60-64, concludes there are no stations transmitting , refer to col. 10, lines 60-64, (**first time slot if data are not being transmitted**);
- three voice channels defined by their respective positions in time slots 76, 77 and 78 (**first, second and third time slots for a particular type/ content of data, as recited by claims 1, 4, 7 and 15**), refer to fig. 4 and col. 7 lines 38-42;
- microprocessor 50 and a digital signal processor for effecting voice and data transfers and communicating time division multiplex protocol control to a like telephone station on the same line, as recited in claim 15, refer to fig. 2 and col. 2 lines 44-47;

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Turnbull does not disclose expressly adjusting time slot to a second time period if data are being transmitted in the time slot;

Wilder discloses the system can be **adjusted** to provide additional slots for the movement of voice data or additional slots for other functions depending upon the particular system configuration, (**adjusting time slot to a second time period if data are not being transmitted in said time slot**), refer to col. 13 lines 18-21;

Komarek discloses programming available within the time slot scheme can **be expanded by increasing the frame time period (adjustment of time period, as recited by claims 1, 4, 7, 11 and 15)**, refer to col. 28 lines 55-57.

Vuong discloses, “transmit controller reformatting the local inbound data in time domain using the TDMA technique wherein the time slot that data is transmitted in is **adjusted to accommodate the bandwidth requirement of the data type**”, *refer to col. 16 lines 13-20.*
Further, Vuong discloses, “ a multiplicity of slots can be adjusted to accommodate a bandwidth requirement of a communication application”, refer to col. 3 lines 5-8.

A person of ordinary skill in the art would have been motivated to employ Komarek's circuit for attenuation of echos, Wilder's digital radio telephone system and Vuong's system into Turnbull's key telephone system without common control in order to introduce the capability of adjusting second time period. The suggestion/motivation to do so would have been to establish inter station frame synchronization. It would have been obvious to a person of ordinary skill in the art that when a new communication session is established, the data from different sources can be combined over successive time slots in a single frame on a real time

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basis, thus eliminating the problems associated with intercom usage, refer to col. 1 line 64 of Turnbull.

Regarding claims 2, 5, 13 and 16, Turnbull discloses in reference to figs. 1 and 2, the process of claims 1, 7 and 11, as explained above, comprising the steps of:

Turnbull discloses an idle system, refer to col. 7 lines 54; inactive interval (no data) having zero channels or time slots, refer to col. 8 lines 67 through col. 9 lines 1-6; all subsequent packet headers cause the receiver to adjust the clock 100 depending upon the time slots in use, refer to col. 9 lines 2-6, and subsequent time slots 76, 77 and 78, fig. 4b, and refer to col. 7 line 40, **(first time slot period to be shorter than the second time period)**.

It would have been obvious to one skilled in the art to use shorter time slot if there is no data transmission.

Regarding claims 8-10, Turnbull discloses adjusting (as recited in claims 8-10) the clock 100 depending upon the time slot utilization (particular type of data, as recited in claims 8-9 or no data, as recited in claim 10), refer to col. 9 lines 5-8;

Turnbull does not disclose expressly the type of data; and increasing or decreasing the time period.

Wilder discloses type of data (voice data or other functions), refer to col. 13 and lines 19-21;

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Komarek discloses programming available within the time slot scheme can be **expanded by increasing the frame time period (adjustment of time period, as recited by claims 8-10)**, refer to col. 28 lines 55-57.

A person of ordinary skill in the art would have been motivated to employ Komarek's circuit for attenuation of echos, Wilder's digital radio telephone system and Vuong's system into Turnbull's key telephone system without common control in order to introduce the capability of adjusting time period of time slot. The suggestion/motivation to do so would have been to optimize time slot utilization. It would have been obvious to a person of ordinary skill in the art that when a new communication session is established , the time slot utilization can be improved or reduced depending upon the type of data from different sources on a real time basis, thus eliminating the problems associated with intercom usage, refer to col. 1 line 64 of Turnbull.

Response to Arguments

5. Applicant's arguments filed 5/27/03 regarding claims 1-17 have been fully considered but they are not persuasive.

Applicant argues that Kumarek et al does not teach that the "time slot duration" is adjusted and, further, argues that programming available within the time slot scheme, which can be expanded by increasing the frame time period, is not intended to adjust time slot duration..

In response, it is stated that transmit controller, refer to Vuong et al (US Patent No. 6,240,077), reformatting the local inbound data in time domain using the TDMA technique wherein the time slot that data is transmitted in is **adjusted to accommodate the bandwidth**

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requirement of the data type, refer to col. 16 lines 13-20. Further, Vuong discloses, " a multiplicity of slots can be adjusted to accommodate a bandwidth requirement of a communication application, refer to col. 3 lines 5-8.

Kumarek (US Patent No. 6,408,008) discloses, programming available with in the time slot scheme can be expanded **by increasing the frame time period**, refer to col. 28 lines 55-57, where it is taught that time slot is programmable and could be expanded..

In view of above explanation, the arguments by the applicants are not persuasive.

6 Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action

Conclusion

7. Any enquiry concerning this communication should be directed to Inder Mehra whose telephone number is (703) 305-1985. The examiner can be normally reached on Monday through Friday from 8:30AM to 5:00 PM.

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If attempt to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Seema Rao, can be reached on (703) 308-5463. Any enquiry of a general nature of relating to the status of this application or processing should be directed to the group receptionist whose telephone number is (703) 305-4700.

8, Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC. 20231

Or faxed to (703) 872-9314.

Hand -delivered responses should be brought to Crystal Park II, 2121 Crystal drive,
Arlington, VA, sixth floor (Receptionist).

Inder Mehra

Inder Mehra

July 29, 2003



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JUL 29 2003